Does integration of services differ from integration of goods?

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The theory of economic integration has been well developed over time but mainly with regard to goods. Conceptually integration for services needs to be differentiated from goods according to the characteristics of services and the nature of barriers to integration. The need for personal interaction between supplier and user gives rise to different ways in which services are traded from goods with suppliers and users crossing borders and a different balance between cross-border trade and permanent presence. Obstacles to trade take place behind rather than at the border. The European Union has been chosen as an example of integration for services both on the basis of past experience and because of its ability to remove obstacles for services using specific institutional powers. Existing levels of integration for goods and services are compared with those to be expected on the basis of theory. Market integration for manufactured goods is lower than previously estimated and services higher, although services remain considerably less integrated. Finally, explanations for differing levels of integration both compared to goods and those expected among different services are sought in terms of the barriers to cross-border trade and permanent presence in the form of regulation, market structures and cultural factors.

Introduction

Economic integration concerns the elimination of economic frontiers between two or more national states. According to Balassa it can be seen either as a process of eliminating discrimination between economic units that belong to different national states or as the absence of various forms of discrimination between national economies (Balassa, 1987). Why does integration matter for service providers? Because integration changes the competitive arena for firms that operate within the area subject to integration, companies need to understand how the competitive environment changes through integration. Since the early work by Tinbergen and Balassa, the theory of integration has been quite well developed but mainly in relation to goods (Sapir, 2006). This article makes a conceptual contribution to the theory and practice of service market

integration by differentiating services following their characteristics and the nature of barriers to integration. This differentiation is both more important and of a different kind than for goods and calls for new measures of how far integration has progressed.

Both conceptually and empirically integration for services is much more difficult to study than for goods. Services are traded cross-border in more ways than goods when either the supplier or the customer physically moves across the border rather than the just the good or service provided. Inherent characteristics of services mean that commercial presence may be the only practicable form of integration, although technology is lessening the burden of proximity. As a result, the balance between cross-border provision and commercial presence is driven by different factors than for goods. Any analysis of integration for services must take into consideration the potential for trade in services and the different forms of trade and not just the actual amount of cross-border trade and investment. Measuring integration in services needs consistent data for cross-border trade, sales of foreign affiliates and some indicator of market size, which are not easily accessible. The nature of obstacles to integration in services also differs from those for goods. Barriers to trade in services do not take place at the border but rather through non-tariff barriers, which are more difficult to apprehend and to abolish. All of these aspects make the analysis of integration for services particularly challenging.

The European Union (EU) is the region of the world with the longest and deepest experience of economic integration between neighboring economies. Obstacles to trade in services can be removed either by removing discriminatory rules (negative integration) or through establishing common rules and policies (positive integration). The latter are particularly important for services and the EU has a special ability to

develop positive integration through its unique set of institutions which include law making capacity and a European Court of Justice to ensure that such laws are applied. . Integration for services should therefore have proceeded further in Europe than other regions of the world and make the EU a particularly pertinent subject for applying the theory of integration to services.

Section 2 reviews the current state of the literature on trade and investment in services as it relates to issues of market integration. Section 3 explores the methodological issues relating to measuring market integration. Section 4 presents the results of the current exercise. Section 5 looks at the policy implications of these estimates. Section 6 concludes.

Trade and investment in services

This paper builds on the work that deals with international trade and integration of services, as studied in the economics literature. We have come a long way from the vision of services as non- tradable. Two developments have underpinned growing tradability of services. First, the impact of technology, particularly information technology, permits certain services that previously required a local presence to be delivered cross border. Second, services that were previously closed to competition and often publicly owned as well, especially network services, have progressively been liberalised thereby providing new opportunities for trade in these services.

The European Union's Single Market programme and international negotiations under the Uruguay Round giving rise to the General Agreement on Trade in Services (GATS) revealed how little was known about trade in services. In turn, policy requirements drove improvements in data collection for cross-border trade, foreign direct investment and for the domestic economy. These improvements have given rise to a growing

literature on trade in services (Francois & Hoekman, 2010). Issues relating to how trade in services should be measured are covered by the introduction to the special edition of the Journal of Industry, Competition and Trade on trade in services (Lejour & Smith, 2008).

Gravity equations have become the standard workhorse for explaining bilateral trade flows and a number of studies apply this approach to services (Kimura & Lee, 2006; Ceglowski, 2006; Walsh, 2008; Head, Mayer & Ries, 2009). The findings are sometimes contradictory with different estimation procedures yielding different results for the importance of the distance variable and with regard to membership of the EU. Head et al. demonstrate the importance of analyzing services on a disaggregated basis over a longer period.

Hirsch provides a theoretical justification for the importance of distance for trade in services based on the inherent characteristics of services (Hirsch, 1989). His analysis of trade in services turns around the degree and forms of interaction between producer and user, which is formalised as the fraction of the total costs of service to the user incurred during that interaction. To the extent that cost and time of travel depends on distance, one would expect that services requiring proximity would be most likely to be affected by distance.

The development of the internet has allowed gravity equations to be applied to services for which distance per se should have no effect, those in which digital content can be downloaded online from anywhere in the world. Blum & Goldfarb find that taste-dependent products suffer from the effects of distance while software or financial information does not (Blum & Goldfarb, 2006). The work of Hirsch on the one hand and Blum & Goldfarb on the other suggests that characteristics of services may affect

tradability in different ways, some concerning the different costs involved in interaction between suppliers and users and others related to the cultural content and norms that the service may purvey.

A second strand in the literature on trade in services uses the recent availability of large micro-level data sets to examine the characteristics of traders often compared to those that trade goods in individual EU countries. Many of these studies are still in the form of working papers and at the time of writing and have yet to appear in peer reviewed journals. Such studies already cover Austria, Belgium, Denmark, France, Germany, Italy and the UK (Borchsenius, Malchow-Møller, Munch & Skaksen, 2010; Gaulier, Milet & Mirza, 2010; Eickelpasch & Vogel, 2011; Breinlich & Criscuolo, 2011). Trade in both goods and services share many common characteristics in terms of the small number of firms that export and that exporters are larger and more productive than other firms. However, the forms in which market integration take place differ both between goods and services and among the different types of service so that one should be wary of drawing conclusions based on the literature of trade in goods to services.

The study of integration for services should proceed from a measure of which services can be traded cross-border and which ones require a commercial presence in the country where the service is to be consumed. Assessing tradability on the basis of existing trade and investment flows has the disadvantage that low levels or absence of trade for a specific service may stem from obstacles rather than the inherent characteristics of the service. Jensen & Kletzer measured the potential for cross-border trade in services by looking at the extent to which services are traded domestically outside local markets in the U.S. (Jensen & Kletzer, 2010). The basic procedure uses micro data on a very decentralized geographic basis to measure the degree of concentration of employment

compared with that of demand. Services for which production is more concentrated geographically than demand are deemed to be traded domestically – and therefore potentially tradable internationally. The approach has the advantage of abstracting from existing trade and investment flows and also yielding a quantitative measure by type of service in the form of Gini indices of concentration.

Conceptually this approach makes no distinction between a service that is not traded domestically although it is potentially tradable from a distance and one that is inherently non-tradable (because characteristics prevent the service from being provided at distance from the customer). Using the definition of Hirsch on the costs of interaction, it may not be worthwhile for a producer to supply a service from a distance even if it is feasible to do so. Since technology can significantly reduce the costs of supplying services, the method can be used as a guide to which services can be expected to be traded (as opposed to tradable) cross-border today but not for the future development of trade in services.

The methodology developed by Jensen and Kletzer has been applied to France (Barlet, Crusson, Dupuch & Puech, 2010) as well as to Denmark by Borchsenius et al. These two countries can be considered representative of respectively large, diversified economies and specialized, knowledge intensive ones within Europe. The two studies yield quite similar results with the exception of the category "Architecture and engineering services". The difference can be explained by the fact that Denmark is more specialized than France in engineering services for which production is more concentrated than architecture. The breakdown of employment by major category of services for France is quite similar to the average for the EU-27. For that reason the results for France are considered to be reasonably representative of the EU. Figure 1

adapted from Barlet et al. lists the different categories of services according to the degree to which they are traded domestically from highest to lowest.

{Figure 1 should go in here}

From the point of view of the firm, internationalisation may take place either through exporting or through foreign direct investment. For services where permanent presence is a very important form of internationalisation, a measure based exclusively on cross-border trade is seriously incomplete. Dunning provided a theoretical underpinning for the study of multinational enterprises and the growth of services (Dunning, 1989). In particular he examined why foreign direct investment (FDI) has been the preferred route for organizing cross-border activities involving services. To produce and market services more successfully than their competitors, multi-national enterprises (MNEs) need to possess specific ownership advantages which they can exploit by choosing where to engage in production (locational choice advantages). Thus in terms of the impact on internationalisation of services, there must be both an advantage to produce locally rather than export cross-border and for the MNE to possess specific advantages over domestic competitors.

Dunning identifies three groups of services where cross-border supply tends to be organised via FDI rather than by arms-length contractual relationships. They are those for which much of the knowledge is proprietary, those that rely on brand name or image to protect quality and trade-related service affiliates like Japanese trading companies. To these may be added the fact that network industries are highly ogopolistic in nature and so provide incentives for well-resourced MNEs to enter markets where they are allowed to do so.

It would be as well to be clear about the nature of the comparisons to be made before moving to the empirical part. The level of integration in any given sector needs to be

assessed against potential for that sector rather than against other sectors. Combining the information in figure one with that on the literature on FDI, it can be expected that the share of cross-border trade will be higher when the service can be traded directly cross-border. Where trade requires either the supplier or the user to move countries this would be considered as a burden of proximity tending to depress cross-border trade and encourage commercial presence. Commercial presence is also likely to be the preferred form of integration for those services in which demand conditions require that production takes place close to the user because of the repetitive nature of purchases, a requirement for strong interaction between provider and client, oligopolistic market structures discouraging import penetration or cultural factors that require that the service be adapted to the needs of the specific market.

Expectations of low cross-border trade in services are subject to one significant caveat. There are numerous local and regional markets in Europe which may not correspond to national borders. Thus 35% of the EU's population resides in an area immediately adjacent to an internal border with a combined GDP of €3.4 billion. In the absence of any form of physical border, there is no reason in principle why such areas should not give rise to substantial cross-border local purchases of services. A parallel can be drawn with the US where local inter-state borders have limited impact on most purchasing decisions.

Measuring integration

Although the theory of integration has been well developed, measuring integration turns out to be less straightforward. At least three elements are involved. The first is a definition of integration that is both conceptually sound and statistically measurable in a comparable fashion across sectors, across countries and across time. The second is the

operationalization of the definition in terms of the data required and the calculations to be performed. The third is the benchmark against which integration is to be measured.

The standard measure of openness to trade takes imports and exports (or the average of the two) as a percentage of total GDP. The results of such an exercise are well known. Large countries are less open than small countries (Fig.2). Goods are much more integrated than services. Only three EU countries have a higher share of trade in services trade than in goods: Ireland (business services), Luxembourg (financial services) and Cyprus (tourism).

{Figure 2 should appear here}

Trade in both goods and services have been increasing over time, but trade in services has not been increasing faster than that in goods. Both the levels and development of traditional measures of integration would therefore seem to indicate a low level of integration for services.

Standard measures of openness to trade however fail to provide an accurate or consistent picture of levels of integration. There are both theoretical and practical reasons for why standard indicators provide an inaccurate measure of integration. The numerator (trade) is measured in terms of turnover or gross output while the denominator (GDP) is a value added related measure. The development of outsourcing for part of the production chain has led to a rise in trade for intermediate products. As a result, the relationship between trade and value added is not stable over time.

A number of approaches can be adopted to address the weaknesses of current measures of integration, each with its own set of advantages and disadvantages. The value-added trade approach avoids double counting of imported components in trade by removing

the fraction of the total value of trade accounted for by inputs that are both imported and then embodied in exports (Hummels, Ishii & Yi, 2001; Daudin, Rifflart & Schweisguth, 2011; Johnson & Noguera, 2012 a, b). A value added approach is particularly appropriate for measuring trade in services since it is able to take into account domestically produced services that are used in the production of goods or other services for export.

In terms of results compared to standard measures of trade openness, Daudin et al find that the share of the secondary sector in total value-added trade (46%) is much smaller than its share in total standard trade (74%). The value added shares of the primary sector is higher as is that of the tertiary sector (41% against 20%). According to their measure, therefore, trade in services is underestimated by a factor of two and that for manufactures overestimated by a little over a half. They also find that value-added exports in services have tended to increase compared with standard exports, whereas value-added exports in industry have tended to decrease. Also of interest is the finding that European integration relative to that of other regions of the world is higher on a value added basis than for total trade (Johnson & Noguera, 2012 a, b).

It should be obvious that measuring integration represents no simple task and it is probably for that reason that current measures fall short of what is required. An obvious starting point for measuring integration is the market. How big are the markets to be integrated? What are their characteristics? This constitutes the denominator to which an appropriate indicator for the numerator can be applied to arrive at a measure of integration that is comparable across time, sectors of activity and countries.
One key requirement identified above is for consistency in the unit of measurement between the different variables. The approach adopted therefore is to standardise around

turnover as a measure of sales that is most comparable to the figures for trade. It would be desirable to have comprehensive, comparable and up-to-date data on market size for different activities drawn directly from the market. Instead an indirect approach, commonly applied in the trade literature is applied. Apparent consumption is calculated as production minus net exports:

$$\textit{Apparent Consumption} = \textit{Production on the domestic territory} - \textit{exports} + \textit{imports}$$

$$= \textit{Turnover} - X + I$$

We need to measure integration in a coherent fashion that allows comparisons between the levels achieved for services compared with goods as well as between the different types of service, irrespective of the manner in which they are traded. The expanded definition of trade in services adopted by the World Trade Organisation for the General Agreement on Trade in Services (GATS) is well suited to this purpose. The GATS distinguishes four different modes of supply for trade in services:

(a) Mode 1 - Cross-border trade;

(b) Mode 2 – Consumption abroad;

(c) Mode 3 - Commercial presence; and

(d) Mode 4 - Presence of natural persons.

The EU's Single Market Program also covers these four modes. Mode 3 is known as right of establishment and receives specific attention in EU legislation. Modes 1, 2 and 4 are known as cross-border provision of services and receive attention as a group in policy.

Putting together the preceding definitions of market size and trade in goods and services, the different elements required for estimating market integration are combined to calculate market integration defined as:

$$Market\ Integration = \frac{Domestic\ Sales\ of\ Foreign\ Affiliates + Imports}{Apparent\ Consumption}$$

The data requirements for these different building blocks are quite extensive. When estimating the different elements, three types of problem have been encountered: problems with the availability of data, problems with the quality of the underlying data and problems with the compatibility of different data sources. Together they reduce the overall quality of the estimates and introduce potentially significant bias.

Four different data sources have been employed in order to make the estimates of market integration. They are first Eurostat structural business statistics which contain activity based data for all enterprises and separately for foreign controlled EU enterprises - inward foreign affiliates trade in services (FATS). Data on trade in goods comes from Comtrade and that on services from the Extended Balance of Payments Services Classification (EBOPS). Limited use is also made of input-output tables.

Structural business statistics cover NACE Rev. 2 Sections B to N and Division 95, which include industry, construction and many commercial services, with the exception of financial and social services and public administration. Availability of data conditions the services for which it is possible to make estimates of integration. The estimates do cover the great majority of the economic activity that can be considered to have been the subject of market liberalization measures within the EU or with third countries with the exception of agriculture, energy and water.

By presenting the results on a disaggregated basis, sector by sector, the issue of which sectors constitute a service can be left to the reader. For example, construction is included in the estimates as a service because it is the subject of international

negotiations on services under the GATS and as a service under the European Single Market under the Services Directive. Manufacturing is presented as a single sector for purposes of comparison with services. The justification is that much of the literature on trade and foreign direct investment has been based around goods and that the literature on services makes reference to the differences between goods and services. It is not meant to imply that levels of integration in services should approach those in manufacturing.

There are two major limitations to the structural business data for the purpose of this exercise. The first is that FATS data are not available for all countries and significant country coverage is only available for a single year, 2008. In practice this means that the EU estimates have to be built up on the basis of the 18 available individual country figures rather than from the EU total. Countries lacking are Belgium, Estonia, Ireland, Greece, Latvia, Lithuania, Luxembourg, Malta and Romania. In terms of cross-border trade the loss of Ireland with its sizeable trade in IT and business services is significant as would have been Luxembourg if the estimates had covered financial services. Greece and Malta are significant contributors to travel and tourism. Overall therefore the coverage of the estimates is high in terms of EU GDP (92%) but less so in terms of cross-border trade in services (83%).

A second limitation to the data lies in the fact that the domestic share of turnover is not presented separately and must be obtained by subtraction of the turnover of foreign affiliates from the turnover of all enterprises. Since the coverage of the FATS data is not as complete as that for the total of all enterprises under reporting and missing data will show up as a misrepresentation of the turnover from domestic firms. Unfortunately, the business statistics provide no data on exports of firms, even on an aggregate basis per

firm. This means that the relative contribution to exports of goods and services of domestic and foreign affiliates cannot be established and must be attributed on a pro rata basis.

Quality represents a concern for trade data. When goods cross frontiers customs claims are made and the goods are registered as incoming or outgoing. For services there is no physical border to cross so that company surveys or surveys of intermediaries must be used to measure trade, which is less precise. Since the abolition of internal borders in the EU's internal market, the same type of source is employed for measuring intra-EU trade in goods as for both intra and extra-EU trade in services. Among the problems that primarily affect the measurement of trade in goods but can also affect services is where flows across borders and ownership change are not coincident. The phenomenon of re-exports is quite well known particularly for countries such as the Netherlands and Belgium, with their substantial through trades from the ports of Rotterdam and Antwerp, and for city states such as Singapore and Hong Kong with their substantial entrepôt trade.

The issue of re-exports is particularly significant for measuring market integration in the way it is undertaken here because it affects import penetration. The measure of market size as apparent consumption (the denominator) should be relatively little affected because only net exports enter into the calculation. However, imports enter into the numerator and as such strongly influence the results. In order to arrive at a realistic measure of import penetration, trade data has to be corrected for the effects of re-exports. From the use table for imports it is possible to derive a value of re-exports as imports for the purpose of exports. The procedure adopted here is to adjust total imports for re-exports only where the share of re-exports in total imports for the country

concerned exceeds 10%. The reason for this is that re-exports are measured with imprecision and that revising the overall import figures may induce further bias.

Goods, particularly manufacturing, are much more affected by re-exports than services and certain countries are very much affected while others scarcely at all. Overall EU import penetration for manufactures is 4.8% lower after adjustment for re-exports and much lower for individual countries (9.1% for Germany, 11.3% for Austria, 11.8% for Denmark and a huge 44.9% for the Netherlands). For services the impact is insignificant at EU level and only significant at the level of individual types of services at country level (less than 5% for transportation for Denmark and Austria, and for information and communication for the Netherlands and Hungary).

Incompatibility between the product classification used for trade in services and the activity classification for domestic and FATS operations constitutes a major headache. For the purpose of this exercise, imports and exports for services from the EBOPS must be matched with the turnover data for enterprises and foreign affiliates collected under the business statistics. Because the product classification for trade in services and that for activities are not fully aligned, problems of matching arise. Of particular concern is the category "travel", which has no counterpart in the activity classifications. Both the problems of articulation between products and activities and matching of trade with activity based data are faced by national authorities and Eurostat when producing input-output tables. They have therefore developed procedures for dealing with the problem. Eurostat kindly provided correspondence tables between the breakdowns of trade in services under EBOPS with the NACE Rev2 classification used for the structural business survey data on turnover. These correspondence tables were applied in order to attribute the individual posts of services' trade to activities.

Data for both FATS and trade in services is incomplete for certain of the eighteen countries selected, particularly at the level of the disaggregation between intra and extra-EU trade and sales of foreign affiliates. Since this breakdown is of importance for measuring integration the procedure followed has been first to calculate overall import penetration and sales of foreign affiliates. For the EU, the breakdown between intra and extra-EU imports and foreign affiliate turnover has been apportioned according to the shares of those countries for which data is available. This implies that the breakdown is less reliable than the figures for overall levels of integration and less so for the more disaggregated figures for individual services than for the more aggregated categories of services. At national level the breakdown between intra and extra-EU data was insufficiently reliable to provide accurate figures and the results of the national exercise are provided at aggregate levels of integration only. The amount of sectoral disaggregation available is also less detailed than for the EU.

EU market integration for services

This section presents the results of the estimation exercise for the 18 countries for 2008 described in the previous section with the attendant deficiencies (Figures 3-5 and Table 1 refer to the aggregates of 18 countries). However these estimates have the merit of presenting for the first time a consistent picture related to the most fundamental variable for analysis of the EU Single Market, the size of market itself. They provide an overview of the degree of market integration with regard to both EU and non-EU suppliers. It is the sum of import penetration and the sales of foreign affiliates on the domestic market.

{Figure 3 should go in here}

As could be expected from the literature on trade and foreign investment, manufacturing presents a starkly different picture from services in both levels and form of integration. Just over two fifths of manufactured goods are supplied by domestic firms. Integration for manufacturing mainly takes the form of imports, which supply over one third of the market, although sales of foreign affiliates are also important supplying around one fifth of the market. EU Member States import nearly two and a half times as much manufactured goods from within the EU as from outside while foreign affiliates of non-EU originated firms contribute almost as much as those from within the EU (figure 3).

Levels of integration for services are much lower than for goods although considerably higher than would be expected from traditional measures of integration. Domestic firms supply just over 70% of the market. Integration takes place almost exclusively through sales of foreign affiliates which supply almost a quarter of the market as against imports which supply less than 6%. In terms of the origins of integration, there is little difference between intra and extra-EU imports, although both are very low. Compared to manufacturing, sales of EU-originated foreign affiliates are relatively more significant than those from third countries. The preferred form of supply for EU firms on the Single Market is therefore through right of establishment rather than cross-border sales.

Market integration for the major types of service is provided in figure 4. Since the heterogeneous nature and characteristics of services would leads us to expect widely different levels and patterns of integration for different services, a measure of overall integration for services is not particularly meaningful. Remarkable in the first instance is how little the share of domestic producers varies across major sectors. Only information and communication are significantly more integrated than average while

construction is almost entirely served by domestic firms. Intra-EU imports and sales of EU affiliates in each case exceed those from third countries. The figure for construction should not surprise. The sector is dominated by small firms serving a local market and cross-border trade is constrained by the requirement for the supplier to provide the service on the premises of the user. Public works, representing about one fifth of the sector and where major international firms such as Bouygues in Europe or Bechtel in the US are active, would likely be affected more by integration.

{Figure 4 should go in here}

The situation with regard to distribution is somewhat more complex. Turnover includes the value of goods or services sold which originate from the manufacturing or other service sectors. It does not measure the output of the distribution sector itself which is the margin associated with the costs of distribution. From the measure of how much services are traded domestically we should not expect much cross-border trade in distribution and rather that integration where it takes place would be via permanent presence, which proves to be the case. Of course the distribution sector plays a major role in trade in goods, which is not being measured here.

However, the development of e-commerce allows the distribution sector to provide both goods and services cross-border. Even when the distribution sector is supplying cross-border, it is by no means clear that such provision is being measured as a distribution service in the statistics on trade in services. The impact of e-commerce on domestic market structures can already be observed in areas such as the distribution of audiovisual or consumer electronics products. Nevertheless, in spite of few, if any, restrictions on e-commerce within the EU, purchases remain overwhelmingly domestic. In the 2011 Eurobarometer survey of consumers in the EU, of those with internet access

at home 45% of respondents claimed to have bought goods or services on line domestically in the previous twelve months but only 10% to have purchased from sellers located in another EU Member State. Comparing actual with expected integration for distribution, one could conclude that the level of cross-border trade is lower than potential but that substantial investment in permanent presence mean that the overall level of integration is at least as high as could be expected. As is the case for construction, further disaggregation of the distribution sector into segments, particularly between wholesale and retail trade, could change this picture somewhat.

Figure 5 looks at levels of overall integration separately for commercial presence and cross-border trade at a more disaggregated sectoral level. In order to differentiate sufficiently individual sectors, the horizontal axis denoting imports as a percent of apparent consumption is on a log scale. This level of disaggregation proves to be the most useful for discerning meaningful differences in the level of integration between different services rather than the more aggregate major categories in figure 4.

{Figure 5 should go in here}

Realised are compared with expected outcomes with regard to overall levels of integration and with regard to the form of integration, emphasizing those services for which results differ from the predicted pattern. Nine sectors have overall levels of integration as expected (Table 1). Five sectors have overall levels of integration lower than expected. They are concentrated among knowledge intensive business sectors with a high impact on the rest of the economy. Publishing displays a higher than expected level of integration.

{Table 1 should go in here}

Air and water transport and R&D are sectors which are both expected to be highly tradable cross-border and do indeed choose this mode of integration. They also have the highest level of overall integration, comparable to and even exceeding the average for manufacturing. Postal and courier services and land transport exhibit low levels of integration. Until recently postal services in addition exhibited the characteristic of a public monopoly. A distinction between rail and road and between freight and passenger transport would have been useful. While many local transport services are either provided directly by local authorities or by concessions, cross-border trade by rail and freight transport by road could have been expected to be substantial.

Within the general category "professional, scientific and technical services", we expect advertising and market research to be traded substantially cross-border. While imports are indeed higher than for other services in this category, permanent presence is the main form of integration as is also the case for management consultancy where there are few barriers to trade. These services are often traded cross-border through the supplier travelling to the client and the early establishment in Europe of service firms following multinational clients may explain the predominance of foreign direct investment over cross-border trade.

Services for which integration appears to be lower than their potential level or for which cross-border trade is below the expected level are of particular interest as pointing to barriers to integration within Europe. This applies to the very low level of integration for legal and accounting services whether by cross-border trade or through commercial presence. Audiovisual and computer services are ones that would be expected to trade cross-border on the basis of their characteristics and domestic patterns of trade but in

fact trade mainly through a permanent presence. This also applies to a lesser extent to telecommunications.

Since the EU regulatory framework and service characteristics apply equally across Member States, varying levels of integration across countries are indicative of country specific differences which may help in explaining why we observe divergences between realized and observed levels of integration for the EU as a whole (figure 6). A number of country groups stand out. Southern European countries including France and Cyprus have very low levels of integration, particularly for services. Northern European countries have higher levels of integration for services, less so for manufacturing. New Member States with the exception of Poland and Cyprus exhibit very high levels of integration for manufacturing, which in view of the recent nature of their accession to the EU is surprising. Of course these estimates are not established on a value added basis so that for example imports of components for final assembly may well distort the estimates for manufacturing. Indeed, Czech Republic, Slovakia and Hungary exhibit extraordinarily high levels of foreign market penetration for both manufacturing and services, well in excess of the most integrated of the northern European countries (United Kingdom, Austria, Sweden and the Netherlands).

{Figure 6 should go in here}

Differences between countries in the degree of openness to trade in services either cross-border or through permanent presence could indicate that domestic barriers to trade vary considerably within the EU, even after accounting for differences in level of development, economic structures or distance from major markets. For example, the OECD indicators for product market regulation for services show major differences in regulation within Europe with northern European countries notably less restrictive than

those in the south. Both differences between the observed level of integration for a specific sector and that which would be expected and between countries within the EU for the same sector require an identification of the specific barriers which apply to that sector and how they can vary from country to country.

Barriers to integration in services may conveniently be divided into three types, those that stem from the regulation of services by public authorities, those that stem from market structures related to the nature of the services concerned and those that stem from cultural factors. These different types of barriers are not independent. Public ownership or regulation of private ownership of network services such as telecommunications was justified by the so-called natural monopoly features of the infrastructure required for the provision of these services. It took technological developments in the form of mobile telephony and the realisation that the provision of a service could be separated from the underlying infrastructure for these markets to be opened effectively to competition. Certain services are characterised by problems of asymmetric information (Canoy & Smith, 2008). Regulation has been one of the responses to such problems. The willingness to purchase a service for which the quality cannot be controlled ex ante and even in certain cases ex post depends on trust and trust in turn is a characteristic that is at least in part culturally determined. Market solutions to problems of asymmetric information such as word of mouth or prior experience with a supplier may be more difficult to apply cross-border. However, where reputation by a foreign supplier can be credibly established this may constitute a powerful incentive to establish in a foreign country. The impact of market structures on integration is an area that has been relatively under-researched and warrants further investigation.

The possibility that domestic regulations may have a depressive effect on international trade in services has been well documented (Francois & Hoekman, 2010). Recent work has attempted to evaluate the extent to which such regulation actually reduces trade for different types of service by applying various measures of regulation of service activities developed by international organisations, in particular the OECD and the World Bank. Research undertaken for the EFIGE project financed by the EU's seventh framework programme found that non-discriminatory domestic regulations in professional services reduce French exports both through the number of firms exporting and through individual export sales. For policy purposes it is important to identify which specific regulations affect trade for which service in which way.

The importance of language as a barrier to trade in services represents one consistent finding from the different studies using a gravity equations approach. However the way in which language affects trade warrants much more attention. Language represents an important vehicle of culture but it would be incorrect to attribute all of the effect of language on trade to cultural differences. For example when countries apply a language test in order to be able to supply services, this is a form of regulatory barrier. The impact of language is not uniform across types of service or the way in which services are traded (Melitz, 2007). For a website to do business with consumers in another country, translation may suffice. Where the service requires direct communication with the client then a different level of ability to communicate will be required.

As with language it is important to specify the channels through which cultural differences affect trade. Trust undoubtedly constitutes one such channel particularly for those services which are consumed at the time of production or where quality is hard to assess. In the specific case of the willingness to use e-commerce to purchase cross-border compared to domestic purchases, trust has been found to have a significant

impact. Trust usually has the effect of reducing the willingness to purchase from a foreign supplier, but it can happen that trust is greater in the foreign than the domestic supplier, in which case it acts as a stimulant to cross-border purchases.

Implications for policy

Market integration for services in the EU is not an end in itself but a means to realise higher growth and more employment. While it is not the purpose of this article to address issues of growth related to market integration, it will be important to begin with to show that inappropriate regulation of services does indeed affect growth.
Inappropriate regulation of services may depress growth and employment directly in the service sector concerned and indirectly through its effect on the industries that use services either as intermediate inputs or as intangible investments.

Barone et al look at the impact on service dependent industries in manufacturing (Barone & Cingano, 2011). They find very significant effects of service regulation on growth. Regulation typically affects foreign direct investment and cross-border trade differently. To the extent that it encourages permanent presence with a higher cost of entry than direct exporting (Greenaway & Kneller, 2007), it will benefit larger, better resourced firms over smaller firms. Restrictions on cross-border supply of services can be expected to impact smaller firms disproportionately and because it is their growth performance that is particularly weak may depress the overall performance of enterprises in Europe.
Market opening for services within the EU has taken two different forms. Specific services have been subject to legislation tailored to the situation in individual industries. For network industries security of supply and universal access was the main driver. Other services have been subject to so-called horizontal market opening measures such

as the directive on mutual recognition of diplomas. The most significant example of a horizontal measure is of course the services directive, only adopted in 2006 and now entering into force - so far too recently to have produced results in terms of market integration. The directive on e-commerce falls somewhere between the service specific and horizontal measures. It is of course easier to relate levels of market integration to specific market opening measures for individual services than for the horizontal measures, whose effect is likely to be more diffuse. Most services however are covered by horizontal rather than by specific legislation of which the most important is very recent. Assessing the impact of the Single Market on market integration for services therefore is as much a prospective exercise as a retrospective one.

Experience with market opening for those sectors for which specific legislation was adopted has been very much a mixed bag. Market opening for telecommunications, particularly mobile telecommunications, is generally perceived as a success. However, the allocation of spectrum on a country-by-country basis means that there are twenty-eight different national markets for mobile telephone operators and the only way to enter such markets is through right of establishment, again reflected in the 30% market share of foreign affiliates. It would of course be technically feasible to allocate spectrum on a different basis so allowing the emergence of genuinely trans-national operators in the place of the existing multi-national ones. At present oligopolistic market structures and geographic fragmentation combine to restrict competition, which in turn has given rise to highly intrusive regulation in areas such as roaming in order to combat abuses of market power by telecommunications operators. More integrated markets should have offered benefits in terms of greater efficiency, more competition and less need for intrusive regulation.

Experience with market opening for air transport has been very different from that with telecommunications. The ability of airlines within the Single Market to pick up and set down passengers throughout the union under “fifth freedom” rights spelt the death knell of the previous bilateral capacity and price sharing agreements between Member States that had dominated airline traffic. It also facilitated the entry of low cost carriers who quickly built up a sizeable following and drove increases in passenger traffic. Of course integration is facilitated by the inherently tradable nature of air transport and the fact that in Europe distances are short and most air traffic therefore takes place between rather than within countries.

The Directive on mutual recognition of diplomas has been the main vehicle for market integration for professional services. It applies mainly to Mode 3 trade through right of establishment of a foreign professional practicing in the host country although it may also apply to Mode 4 trade in services. Notwithstanding revisions, the Directive has not been considered to work well. Subjecting foreign nationals to language tests in order to practice for example can be used as a protectionist barrier. When it is the professional orders in the host country that decide on the equivalence of diplomas as a condition of practicing competition issues arise.

The lack of success of the Single Market Programme in promoting integration for certain tradable services begs the question of the likely impact of the Services Directive. A first approach would begin with the observation that commercial presence is the overwhelming mode by which integration for services takes place. The Services Directive contains important provisions on the right of establishment that would further facilitate this type of integration. The abolition of the economic needs test for services covered by the directive represents one such provision. Points of Single Contact

facilitate entry by simplifying procedures for setting up a business in another Member State. Following this line of argument, the EU should concentrate on where it can have most impact, on the provision of services through commercial presence, and not worry too much about promoting cross-border supply, which in any case will remain a minority pursuit outside a few very specific sectors.

Whether it is wise to neglect cross-border provision depends to a great degree on the potential for such trade as well as its heightened impact on competition compared to a commercial presence. We see many examples of oligopolistic domestic markets for services in which foreign affiliates may be active but by displacing rather than adding to domestic competition. Indeed this is a recurring theme in the literature on FDI. In situations such as this we may find a causality running in the opposite direction. Opening up domestic markets to competition may be required to stimulate integration rather than integration stimulating competition on domestic markets. Such a situation poses challenges for the future direction of EU policy towards services, particularly since the interaction between product and labour markets is very strong and labour markets are both heavily regulated and largely a preserve of policy at Member State level (Canoy & Smith, 2008).

Beyond possible action to improve the functioning of the Single Market for services lays the issue of the proper role for the EU. The EU intervenes to remove barriers to trade across borders, including through right of establishment. Similar to the inter-state commerce clause of the US constitution, the EU cannot intervene when there is no cross-border justification. If however the fundamental economic problem lies with the domestic functioning of markets for services and that it is not possible to change the way markets function through economic integration, then even successful action to

improve the functioning of the Single Market will not yield the same benefits in terms of growth and jobs. This point was made very early on and has never properly been answered (Geroski, 1991).

Conclusion

The main contribution of this article is to the theory and practice of service market integration as compared to goods based on the inherent characteristics of services and the specific obstacles to integration that providers of services face. It emphasises the importance of measuring potential rather than observed trade and investment as the yardstick by which integration should be appreciated. Second, it shows how realised performance can be compared with the one that could be expected on the basis of characteristics of services. Third, it highlights for which services obstacles to cross-border and trade and investment still hinder the realisation of a functioning European Single Market and prevent the reaping of attendant gains from trade. Finally, while a proper explanation of the degree of unrealised potential requires greater in-depth studies of individual services, the major types of obstacle are identified and some discussion of available evidence provided. Together they provide improved understanding of the nature of economic integration for services.

Integration for services needs to be measured in a way that is conceptually correct in terms of how services are traded covering both the different forms of cross-border trade and sales of foreign affiliates. The very different performance of individual services with regard to integration both from a theoretical and practical point of view illustrates the need to provide estimates at an adequately disaggregated level in a way that is consistent, replicable and comparable across time and across countries. The estimates presented here should be taken as a benchmark against which future developments in

integration can be measured, particularly for those services which have recently been the subject of liberalisation under the Services Directive. These estimates suffer from a number of deficiencies relating to data availability, data quality and incompatibility between different sets of data. The accuracy of estimates of market integration could be improved through a better correspondence of the categories of data on trade in services with those used for structural data on enterprises and by collecting data on exports directly from enterprises surveyed.

The low level of integration for most services twenty years after the date initially set for completion of the EU internal market should already alert policy makers to the scale of efforts that are required if the original vision of a single integrated market is to be realised. The fact that integration has overwhelmingly taken place through commercial presence rather than through cross-border trade has implications for the degree of effective competition which integration brings. While information technology brings new opportunities for cross-border trade, domestic restraints on the way services are provided will need to be eased if this potential is to be realised. More active competition policy, both EU and national policies, particularly for professional services and better co-ordination between competition and Single Market policies could help to ensure that the benefits of the EU market for services in terms of growth and employment are realized.

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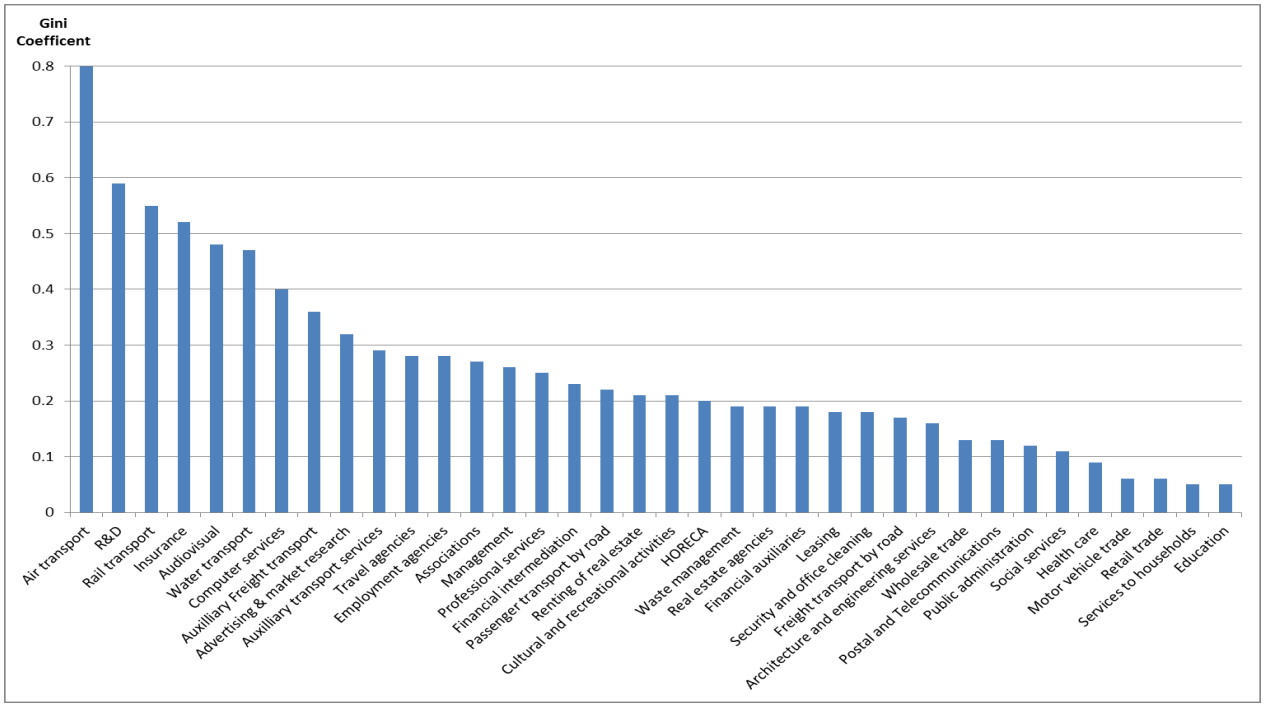
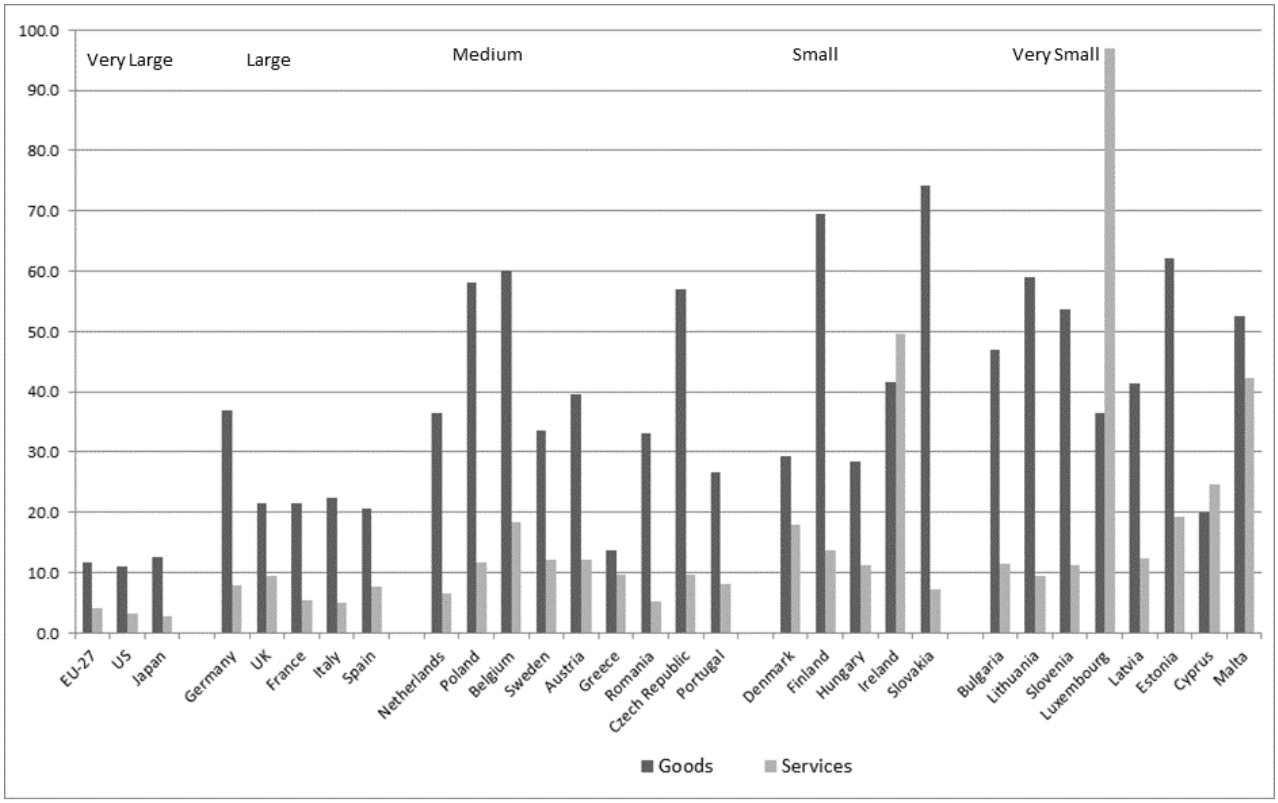
Figures



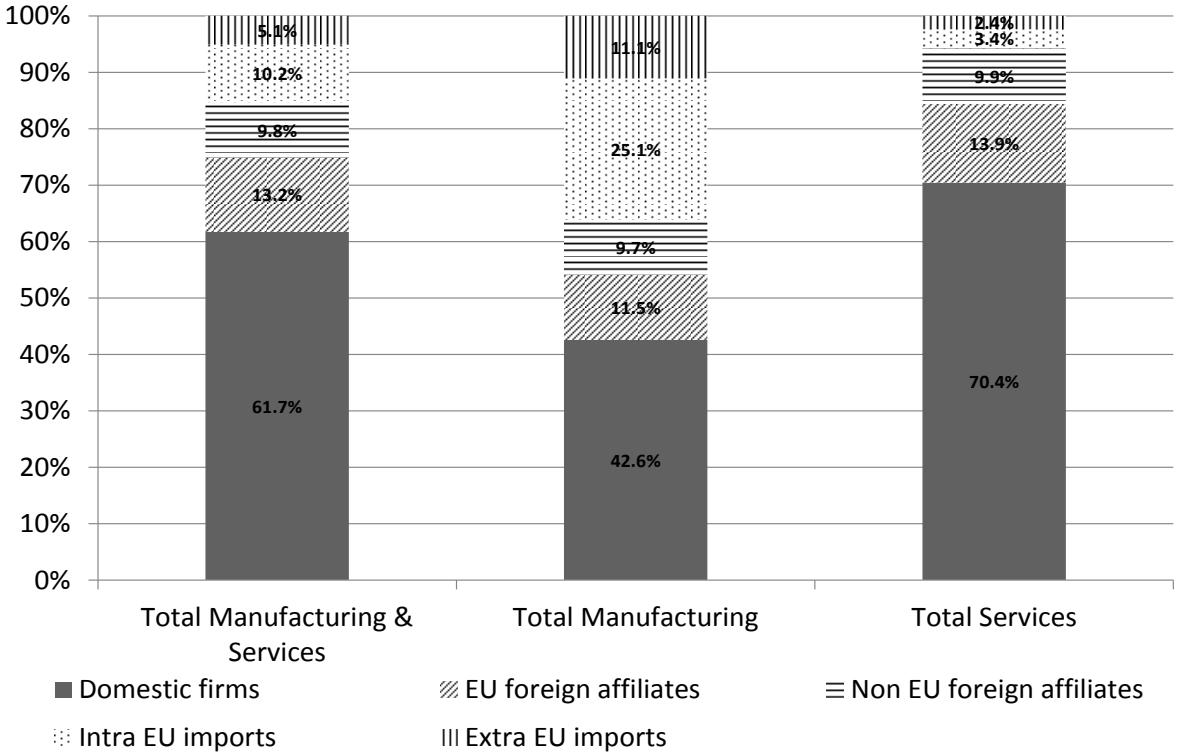
Source: Adapted from Barlet, Crusson, Dupuch & Puech

Figure 1. Domestic levels of trade for different types of services



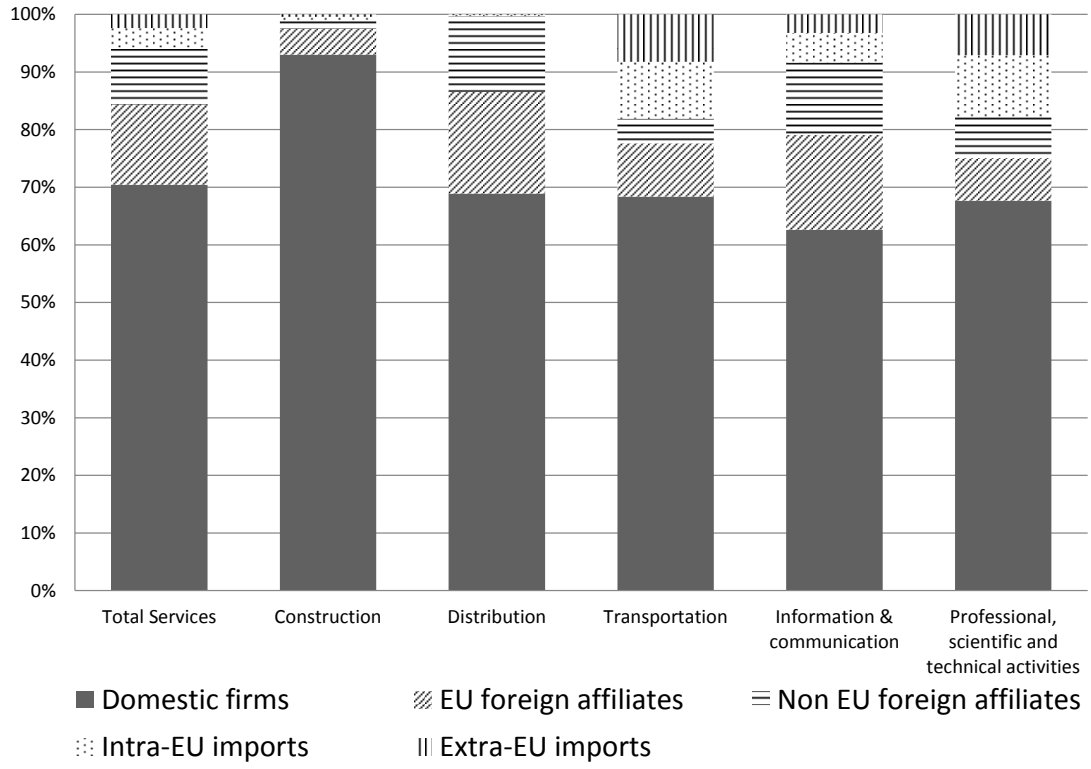
Source: Eurostat International Trade in Services – Structural Indicators

Figure 2. Degree of integration: cross-border trade as % of GDP, 2009



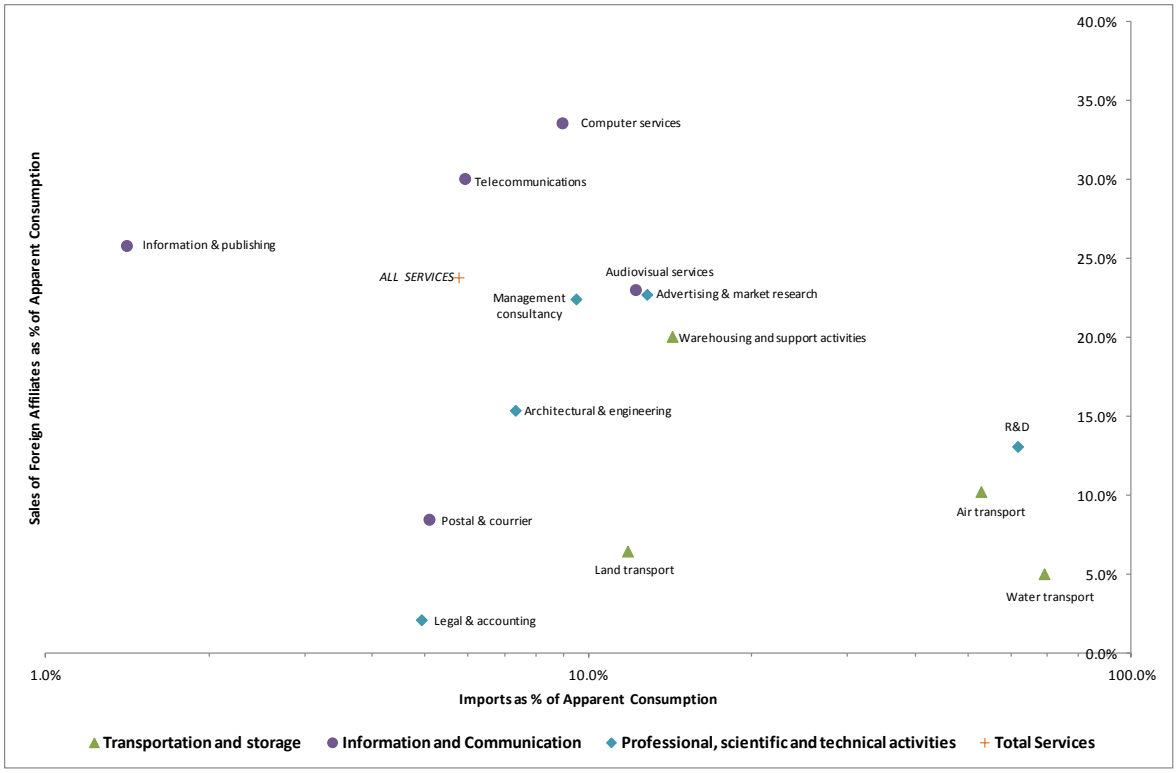
Source: Own calculations on the basis of Eurostat structural business statistics, balance of payments, Comtrade and input-output tables

Figure 3. Overall market integration of the economy



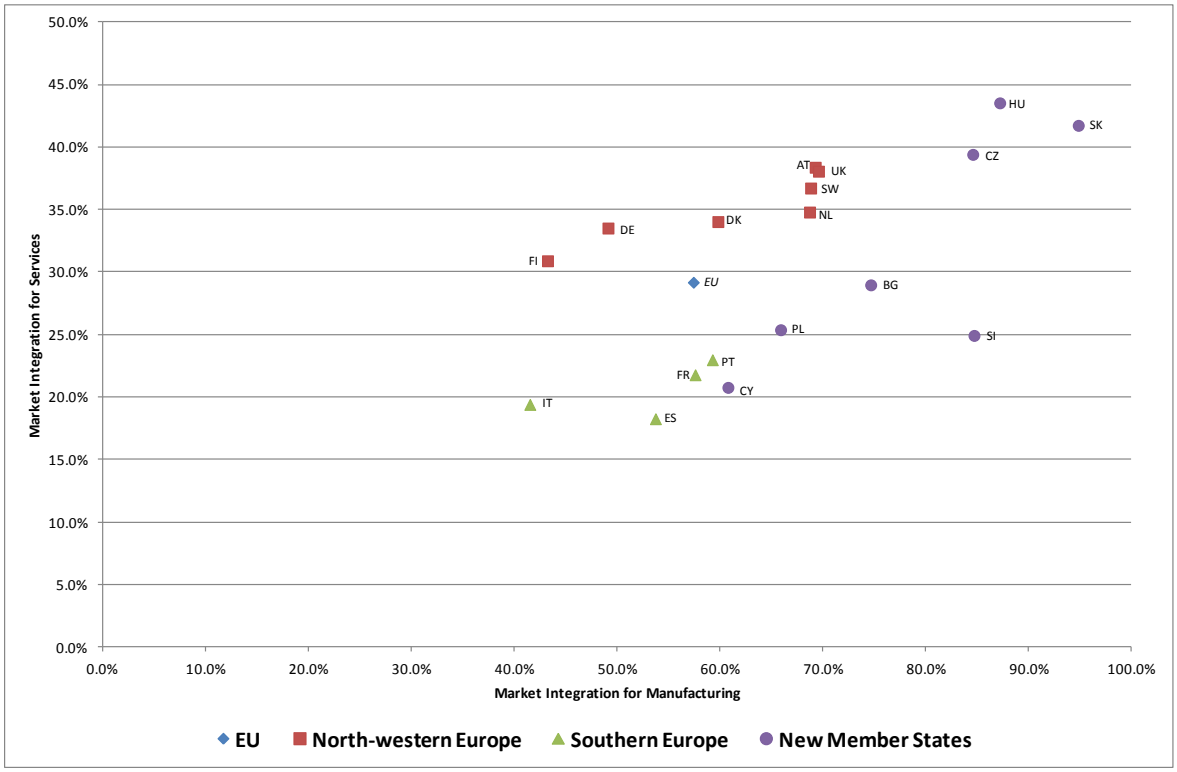
Source: Own calculations on the basis of Eurostat structural business statistics, balance of payments, Comtrade and input-output tables

Figure 4. market integration for major services



Source: Own calculations on the basis of Eurostat structural business statistics, balance of payments, Comtrade and input-output tables

Figure 5. Levels and types of integration for individual sectors



Source: Own calculations on the basis of Eurostat structural business statistics, balance of payments, Comtrade and input-output tables

Figure 6. Market integration for manufacturing and services by country

Tables

Table 1. Comparison of expected versus realised levels of integration for services

Realised	*Expected*		
	High	Medium	Low
High >40%	R&D Air transport Water Transport Computer services		
Medium 20-40%	Audiovisual services Advertising & market research Management consultancy	Warehousing and supporting activities for transport Telecommunications Architectural & engineering activities	Distribution Information & publishing
Low <20%	Legal & accounting activities	Land transport	Construction Postal & courier services